

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Martha M. Allman

GENERAL INFORMATION:

Name:	Corning, Inc.
Address:	680 East Office Street Harrodsburg, KY 40330-1311
Date application received:	8/28/2008
SIC Code/SIC description:	3229, Pressed and Blown Glass and Glassware, NEC
Source ID:	21-167-00004
Agency Interest:	3143
Activity:	APE20080001
Permit:	V-03-052 R2

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
<input checked="" type="checkbox"/> Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
__ Non-Attainment	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
__ PSD	<input type="checkbox"/> CAM	
__ Netted out of PSD/NSR		
__ Not major modification per 401 KAR 51:001, 1(116)(b)		

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☐ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM ₁₀	5.18/5.25	9.72/10.62
SO ₂	87.51	137.13
NO _x	304.72	487.74
CO	5.71	19.84
VOC	4.87	8.39
LEAD	0.000035	0.0011
Single HAPs (by CAS)	0.96	1.93
Source wide HAPs	1.0265	2.03

SOURCE DESCRIPTION:

CURRENT PERMITTING ACTION (V-03-052R2):

On August 28, 2008, an application was received from Corning, Inc. to increase the permitted glass production (throughput) at Glass Melting Tanks 138, 139, 1310, and 1311 (EU05, EU06, EU07, EU08 respectively.). Specifically, the requested production increase for the four tanks is 2.4 tons/hour (0.6 tons/hour each.). The difference in Potential to Emit is as follows:

Affected Units

Potential To Emit (tons/year)			
Pollutant	Existing	Proposed	Difference
Antimony	0.01	0.01	0.00
Arsenic	2.12	2.55	0.42
CO	1.75	2.10	0.35
NO ₂	178.09	205.87	27.78
PM ₁₀	3.78	4.54	0.76
PT	3.78	4.54	0.76
SO ₂	49.06	58.87	9.81
VOC	2.63	3.15	0.53

Sourcewide

Potential To Emit (tons/year)		
Pollutant	Existing	Proposed
Antimony	0.1	0.10
Arsenic	1.51	1.93
CO	19.49	19.84
NO ₂	459.96	487.74
PM ₁₀	8.96	9.72
PT	9.86	10.62
SO ₂	127.32	137.13
VOC	7.86	8.39
Cobalt	0.004	0.004
Lead	0.0011	0.0011

The cover letter included with the application indicated that the facility is comprised of equipment that is permitted under two separate 250 tons/year PSD (Prevention of Significant Deterioration) avoidance caps. However, neither of these caps are listed in the existing permit. The letter further indicated that no physical changes are necessary to accommodate this production increase.

A review of the permitting history of these 4 tanks with respect to throughputs is summarized below (the permitting action is not necessarily the one in which an increase in throughputs was approved):

Permitting Action	T138 (lbs/hour)	T139 (lbs/hour)	T131 (lbs/hour)	T1311 (lbs/hour)
Current Revision	1200	1200	1200	1200
F725	1000	1000	1000	1000
S-95-135	750	850	609	600
C-92-028		752	609	455

The permitting action identified as "F725" was the result of an application filed on July 9, 1998. Additional comments about this application was filed by letter dated July 21, 1998, from William M. Simpson, Senior Project Engineer with Corning, Inc. This letter advised the Division of Corning's position that PSD did not apply. That is, it was represented to the Division that the 1000 lb/hr throughput was the maximum capacity of the units, rather than a voluntary limit to avoid PSD. If 1000 lb/hr was the maximum capacity of the units, then language limiting throughputs was not necessary. If that was the case, then it was not clear how throughputs could now be increased given that "no physical changes are necessary to accommodate this production increase."

By letter dated December 17, 2008, from William L. Tolliver, Environmental, Health and Safety Supervisor with Corning, Inc., Mr. Tolliver clarified that the current application was seeking limits to avoid PSD, and explained some of the operational changes that have taken place that allow for increased throughputs, as follows:

- Glass composition and raw material improvements has reduced the number of defects expected at higher throughputs
- Furnace design (material change - refractory) has improved glass quality and throughput
- Glass delivery system improvements (plumbing and atmosphere) allow a higher volume of glass flow without increased defects
- Improvements in the glass forming process (weir) to allow for increases in throughput
- Automation allows Corning to remove sheets of glass from the process at a faster rate without damaging the glass product
- Cycle time improvements have been realized on the production line
- Improved process knowledge and understanding has increased efficiencies and will allow higher throughput rates without sacrificing glass quality

Therefore, operating limits are now included in the permit that will limit production to 1200 lbs/hour for each unit and limit the use of propane by all 4 units combined to 5810.4 tons of glass pulled per year to avoid applicability of 401 KAR 51:017, Prevention of Significant Deterioration.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

Operating limits are included in the permit that will limit production to 1200 lbs/hour for each unit and 5810.4 tons glass per year for all 4 units while firing propane to avoid applicability of 401 KAR 51:017, Prevention of Significant Deterioration.

From previous permitting actions: Source wide hazardous air pollutants (HAP) shall not exceed 10 tons for single HAP, and 25 tons for combined HAPs per any twelve (12) consecutive months total.

Emissions Units 17, 18, and 19 shall not exceed 55 hours of operation per each 12-consecutive months.

OPERATIONAL FLEXIBILITY:

From a previous permitting action: The following has been established as alternating operating scenarios by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

Each glass-melting tank has the following three (3) operating scenarios:

SCENARIO 1: F Glass

This operating scenario corresponds to total glass production that produces arsenic emissions > 0.4 Mg/yr.

SCENARIO 2: F/G Glass

This operating scenario corresponds to total glass production that produces arsenic emissions < 0.4 Mg/yr.

SCENARIO 3: G Glass

This operating scenario corresponds to production of arsenic free glass.